Supplement

Suppl. Table 1: Causes of cardiovascular death.

n [%]	**Cause of cardiovascular death** **total n = 91 [100]**
cardiac	56 [62]
STEMI	9 [10]
NSTEMI	35 [38]
CABG	12 [13]
cerebrovascular	35 [38]
Stroke	25 [28]
Carotid operation	10 [11]

STEMI = ST-elevation myocardial infarction; NSTEMI = non-ST elevation myocardial infarction; CABG = coronary artery bypass graft surgery

Suppl. Table 2 a

	PAD 3D Score	tp	tn	fn	fp	Sensitivity, %	Specificity, %	Post-test probability, %	Pre-test probability, %
Mortality within 1 month									1%
	1	17	106	0	1187	100	8	1	
	2	17	241	0	1052	100	19	2	
	3	15	406	2	887	88	31	2	
	4	15	597	2	696	88	46	2	
	5	11	775	6	518	65	60	2	
	6	7	969	10	324	41	75	2	
	7	4	1054	13	239	24	82	2	
	8	3	1120	14	173	18	87	2	
	9	2	1222	15	71	12	95	3	
	10	2	1245	15	48	12	96	4	
	≥11	1	1271	16	22	6	98	4	
Mortality within 6 months									4%
	1	56	106	0	1148	100	8	5	
	2	55	240	1	1014	98	19	5	
	3	48	400	8	854	86	32	5	
	4	44	587	12	667	79	47	6	
	5	39	764	17	490	70	61	7	
	6	29	952	27	302	52	76	9	
	7	23	1034	33	220	41	82	9	
	8	18	1096	38	158	32	87	10	
	9	9	1190	47	64	16	95	12	
	10	6	1210	50	44	11	96	12	
	≥11	3	1234	53	20	5	98	13	
Mortality within 1 year									7%
	1	92	106	0	1112	100	9	8	
	2	89	238	3	980	97	20	8	
	3	80	396	12	822	87	33	9	
	4	73	580	19	638	79	48	10	
	5	64	753	28	465	70	62	12	
	6	47	934	45	284	51	77	14	
	7	39	1014	53	204	42	83	16	
	8	32	1074	60	144	35	88	18	
	9	18	1163	74	55	20	95	25	
	10	15	1183	77	35	16	97	30	
	≥11	5	1200	87	18	5	99	22	
Mortality within 18 months									10%
	1	118	97	2	1035	98	9	10	
	2	114	224	6	908	95	20	11	
	3	103	376	17	756	86	33	11	
	4	94	549	26	583	78	48	13	
	5	81	707	39	425	68	62	15	
	6	58	873	62	259	48	77	18	
	7	45	945	75	187	38	83	19	
	8	38	1004	82	128	32	89	22	

	9	18	1081	102	51	15	95	25
	10	15	1101	105	31	13	97	32
	≥11	5	1117	115	15	4	99	24
Mortality within 2 years								12%
	1	137	87	2	914	99	9	11
	2	131	203	8	798	94	20	12
	3	120	333	19	668	86	33	13
	4	107	483	32	518	77	48	15
	5	92	622	47	379	66	62	17
	6	65	771	74	230	47	77	19
	7	51	836	88	165	37	84	21
	8	42	885	97	116	30	88	24
	9	20	955	119	46	14	95	27
	10	17	975	122	26	12	97	36
	≥11	7	990	132	11	5	99	35
Mortality within 3 years								17%
	1	171	79	2	739	99	10	14
	2	162	177	11	641	94	22	15
	3	147	285	26	533	85	35	17
	4	130	415	43	403	75	51	19
	5	111	524	62	294	64	64	21
	6	78	642	95	176	45	78	24
	7	60	694	113	124	35	85	26
	8	46	729	127	89	27	89	27
	9	22	782	151	36	13	96	31
	10	18	796	155	22	10	97	37
	≥11	7	808	166	10	4	99	33
Mortality within 4 years								23%
	1	199	70	2	605	99	10	17
	2	189	150	12	525	94	22	18
	3	170	244	31	431	85	36	19
	4	147	348	54	327	73	52	21
	5	124	438	77	237	62	65	24
	6	86	530	115	145	43	79	27
	7	66	577	135	98	33	85	29
	8	50	605	151	70	25	90	30
	9	24	645	177	30	12	96	33
	10	19	657	182	18	9	97	39
	≥11	8	667	193	8	4	99	38
Mortality within 5 years								30%
	1	213	53	2	456	99	10	18
	2	202	118	13	391	94	23	19
	3	178	187	37	322	83	37	20
	4	155	263	60	246	72	52	23
	5	130	327	85	182	60	64	25
	6	92	403	123	106	43	79	29

	7	71	439	144	70	33	86	32
	8	53	459	162	50	25	90	33
	9	26	487	189	22	12	96	35
	10	19	496	196	13	9	97	40
	≥11	8	504	207	5	4	99	43
Mortality within 6 years								39%
	1	226	40	2	317	99	11	19
	2	215	79	13	278	94	22	20
	3	189	129	39	228	83	36	21
	4	165	183	63	174	72	51	24
	5	138	232	90	125	61	65	27
	6	99	278	129	79	43	78	29
	7	77	308	151	49	34	86	34
	8	59	320	169	37	26	90	34
	9	27	340	201	17	12	95	34
	10	19	346	209	11	8	97	36
	≥11	8	353	220	4	4	99	40

PAD RF Score	tp	tn	fn	fp	Sensitivity, %	Specificity, %	Post-test probability, %	Pre-test probability, %
Mortality within 1 month								1%
1	17	30	0	1263	100	2	1	
2	17	87	0	1206	100	7	1	
3	17	170	0	1123	100	13	1	
4	17	292	0	1001	100	23	2	
5	17	437	0	856	100	34	2	
6	16	597	1	696	94	46	2	
7	13	771	4	522	76	60	2	
8	8	911	9	382	47	70	2	
9	4	1021	13	272	24	79	1	
10	3	1104	14	189	18	85	2	
11	2	1175	15	118	12	91	2	
12	1	1238	16	55	6	96	2	
≥13	1	1262	16	31	6	98	3	
Mortality within 6 months								4%
1	56	30	0	1224	100	2	4	
2	55	86	1	1168	98	7	4	
3	54	168	2	1086	96	13	5	
4	52	288	4	966	93	23	5	
5	50	431	6	823	89	34	6	
6	45	587	11	667	80	47	6	
7	38	757	18	497	68	60	7	
8	31	895	25	359	55	71	8	
9	23	1001	33	253	41	80	8	
10	17	1079	39	175	30	86	9	
11	11	1145	45	109	20	91	9	
12	3	1201	53	53	5	96	5	
≥13	1	1223	55	31	2	98	3	

Mortality within 1 year								7%
	1	92	30	0	1188	100	2	7
	2	91	86	1	1132	99	7	7
	3	90	168	2	1050	98	14	8
	4	86	286	6	932	93	23	8
	5	81	426	11	792	88	35	9
	6	72	578	20	640	78	47	10
	7	62	745	30	473	67	61	12
	8	54	882	38	336	59	72	14
	9	43	985	49	233	47	81	16
	10	33	1059	59	159	36	87	17
	11	23	1121	69	97	25	92	19
	12	9	1171	83	47	10	96	16
	≥13	4	1190	88	28	4	98	13
Mortality within 18 months								10%
	1	119	27	1	1105	99	2	9
	2	118	78	2	1054	98	7	10
	3	117	157	3	975	98	14	10
	4	112	269	8	863	93	24	11
	5	106	405	14	727	88	36	12
	6	94	548	26	584	78	48	13
	7	76	699	44	433	63	62	14
	8	61	822	59	310	51	73	16
	9	50	921	70	211	42	81	18
	10	39	987	81	145	33	87	20
	11	28	1047	92	85	23	92	24
	12	11	1091	109	41	9	96	20
	≥13	4	1107	116	25	3	98	13
Mortality within 2 years								12%
	1	138	26	1	975	99	3	11
	2	137	69	2	932	99	7	11
	3	136	141	3	860	98	14	12
	4	130	243	9	758	94	24	13
	5	123	363	16	638	88	36	14
	6	110	485	29	516	79	48	15
	7	89	617	50	384	64	62	17
	8	70	723	69	278	50	72	18
	9	56	811	83	190	40	81	20
	10	44	873	95	128	32	87	23
	11	31	928	108	73	22	93	27
	12	12	966	127	35	9	97	23
	≥13	4	978	135	23	3	98	13
Mortality within 3 years								17%
	1	172	24	1	794	99	3	13
	2	171	64	2	754	99	8	14
	3	167	123	6	695	97	15	15
	4	161	214	12	604	93	26	16
	5	150	315	23	503	87	39	18
	6	134	409	39	409	77	50	19
	7	108	510	65	308	62	62	20
	8	84	598	89	220	49	73	22
	9	65	671	108	147	38	82	24
	10	51	720	122	98	29	88	27
	11	36	765	137	53	21	94	33
	12	13	790	160	28	8	97	25
	≥13	5	800	168	18	3	98	17
Mortality within 4 years								23%

	1	200	21	1	654	100	3	16
	2	199	57	2	618	99	8	16
	3	194	104	7	571	97	15	17
	4	187	182	14	493	93	27	19
	5	172	259	29	416	86	38	20
	6	153	343	48	332	76	51	22
	7	122	425	79	250	61	63	23
	8	92	495	109	180	46	73	24
	9	70	560	131	115	35	83	27
	10	54	597	147	78	27	88	30
	11	39	635	162	40	19	94	37
	12	15	656	186	19	7	97	32
	≥13	7	663	194	12	3	98	26
Mortality within 5 years								30%
	1	214	18	1	491	100	4	17
	2	212	48	3	461	99	9	18
	3	206	84	9	425	96	17	18
	4	197	143	18	366	92	28	20
	5	181	201	34	308	84	39	21
	6	161	261	54	248	75	51	23
	7	130	323	85	186	60	63	25
	8	98	376	117	133	46	74	26
	9	75	427	140	82	35	84	30
	10	57	451	158	58	27	89	31
	11	41	481	174	28	19	94	40
	12	16	497	199	12	7	98	38
	≥13	8	501	207	8	4	98	32
Mortality within 6 years								39%
	1	227	14	1	343	100	4	18
	2	225	31	3	326	99	9	19
	3	218	57	10	300	96	16	19
	4	208	98	20	259	91	27	21
	5	191	140	37	217	84	39	23
	6	170	186	58	171	75	52	25
	7	139	229	89	128	61	64	26
	8	107	266	121	91	47	75	28
	9	79	299	149	58	35	84	31
	10	61	314	167	43	27	88	32
	11	44	337	184	20	19	94	42
	12	17	349	211	8	7	98	41
	13	9	353	219	4	4	99	43

PAD = peripheral artery disease; PAD^{3D} = peripheral artery disease 3-dimensional risk score; PAD^{RF} = classical PAD risk factors;

Suppl. Table 2 b

			Area under ROC curve (95% CI)		
	N	Number of events	PAD^{3D}	PAD^{RF}	p
Mortality within 1 month	1310	17	0.669 (0.565 to 0.773)	0.697 (0.621 to 0.772)	0.628
Mortality within 6 months	1310	56	0.697 (0.629 to 0.764)	0.682 (0.617 to 0.748)	0.525
Mortality within 1 year	1310	92	0.708 (0.655 to 0.762)	0.702 (0.648 to 0.755)	0.680
Mortality within 18 months	1252	120	0.692 (0.643 to 0.741)	0.686 (0.639 to 0.734)	0.674
Mortality within 2 years	1140	139	0.684 (0.638 to 0.730)	0.686 (0.642 to 0.731)	0.876
Mortality within 3 years	991	173	0.683 (0.640 to 0.725)	0.683 (0.641 to 0.724)	0.998
Mortality within 4 years	876	201	0.677 (0.636 to 0.717)	0.676 (0.636 to 0.716)	0.953
Mortality within 5 years	724	215	0.674 (0.632 to 0.716)	0.676 (0.635 to 0.717)	0.878
Mortality within 6 years	585	228	0.673 (0.629 to 0.717)	0.678 (0.634 to 0.721)	0.702

AUROCs = Area under receiver operating characteristic curves; PAD = peripheral artery disease; PAD^{3D} = peripheral artery disease 3-dimensional risk score; PAD^{RF} = classical PAD risk factors;

Suppl. Figure 1. Age as a predictor of outcome. Kaplan-Meier curves of (A) all-cause mortality and (B) cardiovascular mortality over a 72-month-follow-up period in the Test cohort.

Suppl. Figure 2. Severity of the disease i.e. Rutherford stage as a predictor of outcome. Kaplan-Meier curves of (A) all-cause mortality and (B) cardiovascular mortality over a 72-month-follow-up period in the Test cohort.

Suppl. Figure 3. Extent of the disease as a predictor of outcome. Kaplan-Meier curves of (A) all-cause mortality and (B) cardiovascular mortality over a 72-month-follow-up period in the Test cohort.

Suppl. Figure 4. Gender as a predictor of outcome. Kaplan-Meier curves of (A) all-cause mortality and (B) cardiovascular mortality over a 72-month-follow-up period in the Test cohort.

Suppl. Figure 5. Hypertension as a predictor of outcome. Kaplan-Meier curves of (A) all-cause mortality and (B) cardiovascular mortality over a 72-month-follow-up period in the Test cohort.

Suppl. Figure 6. Diabetes mellitus as a predictor of outcome. Kaplan-Meier curves of (A) all-cause mortality and (B) cardiovascular mortality over a 72-month-follow-up period in the Test cohort.

Suppl. Figure 7. Smoking status as a predictor of outcome. Kaplan-Meier curves of (A) all-cause mortality and (B) cardiovascular mortality over a 72-month-follow-up period in the Test cohort.

Suppl. Figure 8. Dyslipidemia as a predictor of outcome. Kaplan-Meier curves of (A) all-cause mortality and (B) cardiovascular mortality over a 72-month-follow-up period in the Test cohort.

Suppl. Figure 9. Combined effects of age, PAD severity and atherosclerotic extent. Survival outcomes for (A) all-cause mortality and (B) cardiovascular mortality in patients

graded along different PAD^{3D} scores, as well as for different PAD^{RF} scores (C and D) in the Test cohort.

PAD = peripheral artery disease; PAD^{3D} = peripheral artery disease 3-dimensional risk score; PAD^{RF} = classical PAD risk factors;

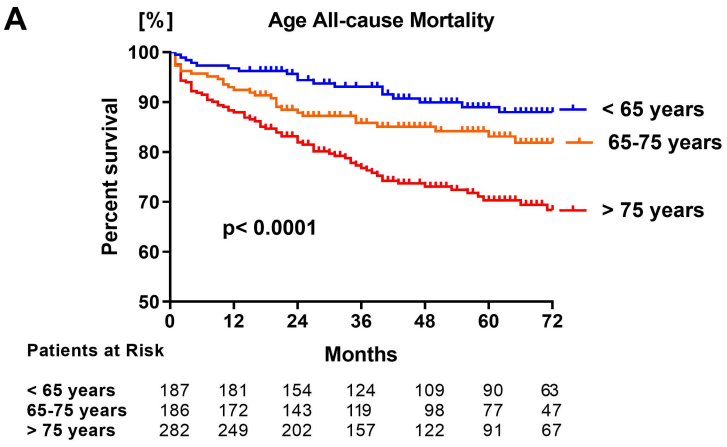
Suppl. Figure 10.

AUROC between PAD^{3D} and PAD^{RF} at (A) 1 month, (B) 6 months, (C) 18 months, (D) 3 years, (E) 4 years, (F) 5 years and (G) 6 years.

AUROCs = Area under receiver operating characteristic curves; PAD = peripheral artery disease; PAD^{3D} = peripheral artery disease 3-dimensional risk score; PAD^{RF} = classical PAD risk factors;

Supplement Figures

Fig. S1



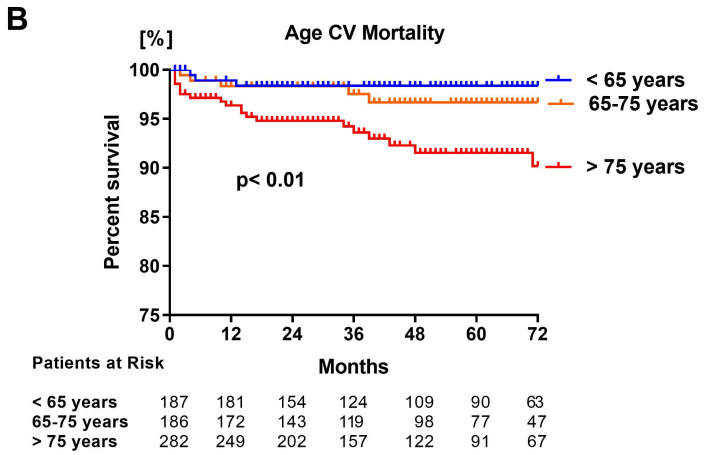
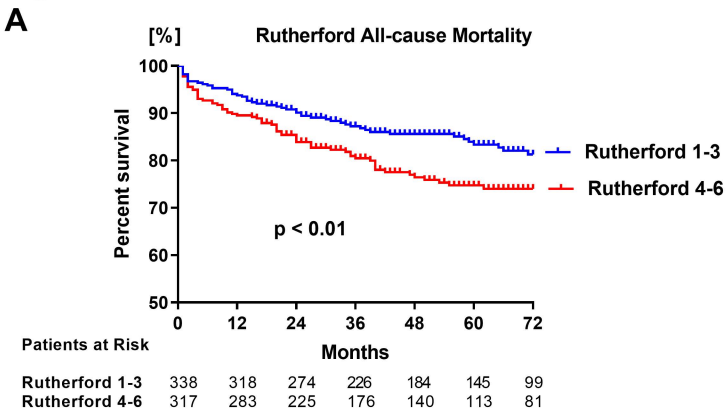


Fig. S2



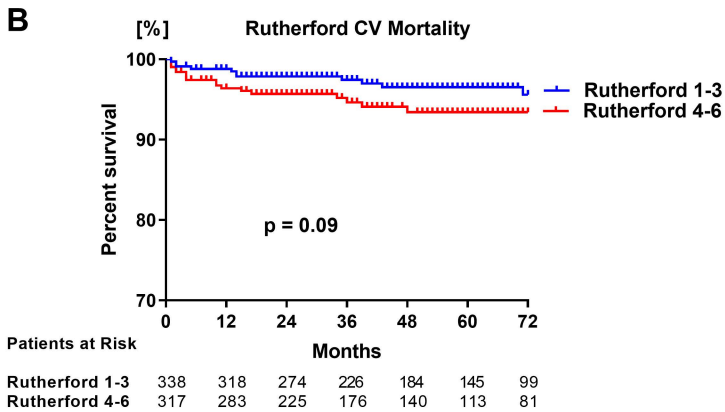
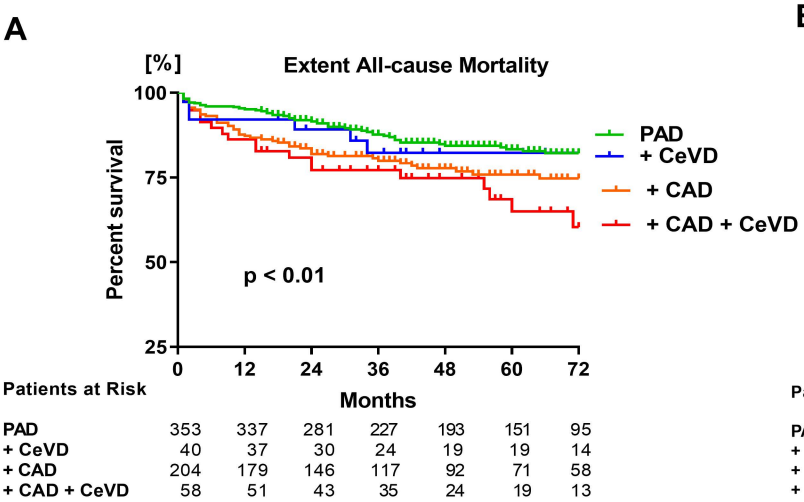
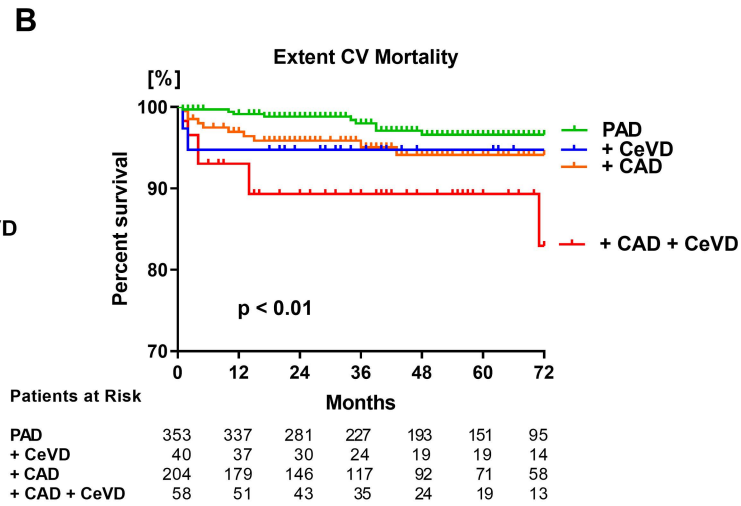


Fig. S3

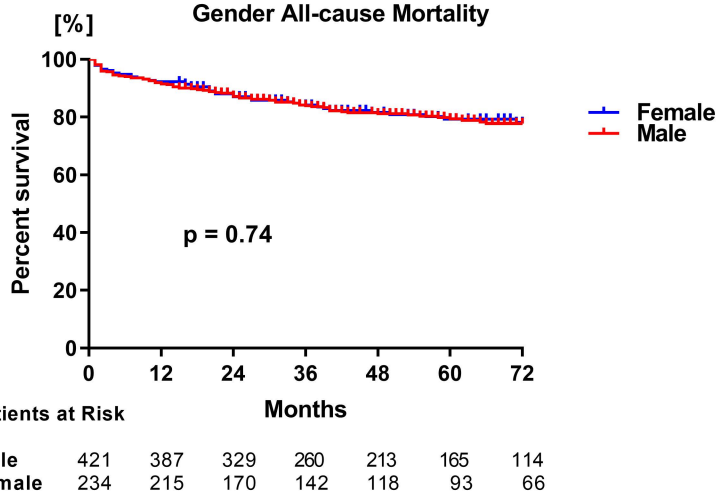




Supplement Figures

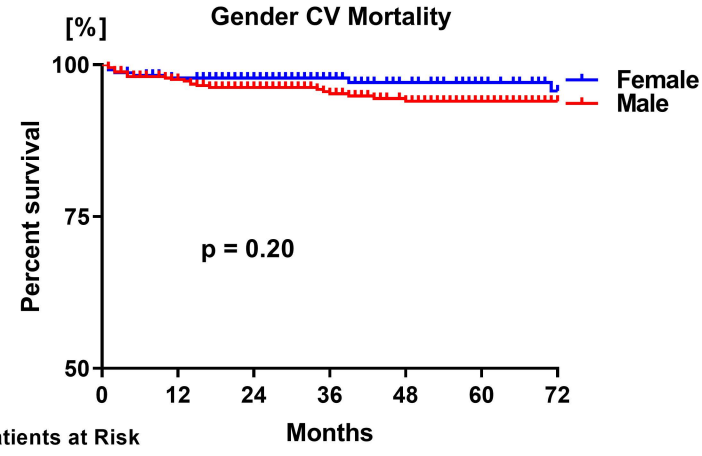
Fig. S4

A



Patients at Risk							
Male	421	387	329	260	213	165	114
Female	234	215	170	142	118	93	66

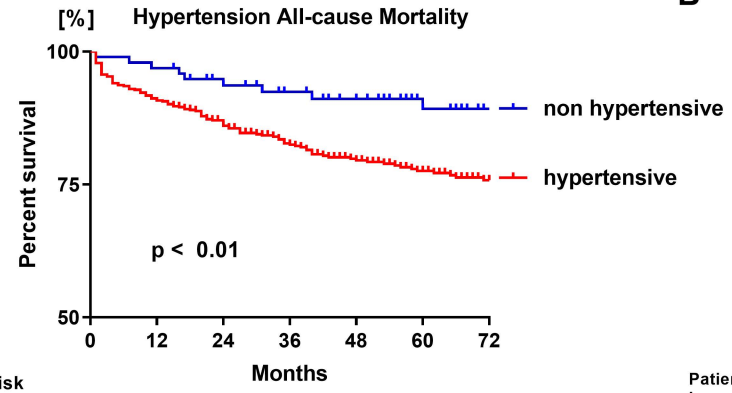
B



Patients at Risk							
Male	421	387	329	260	213	165	114
Female	234	215	170	142	118	93	66

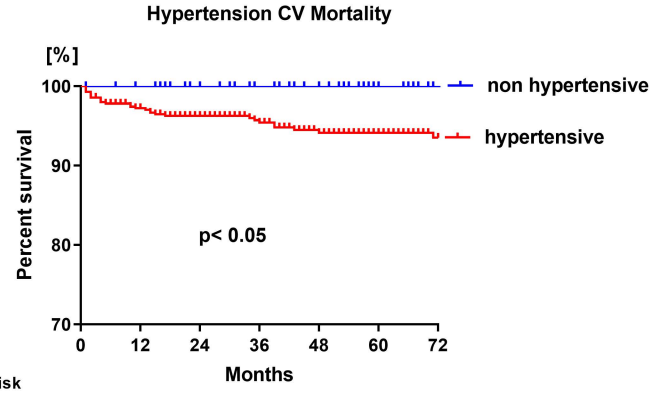
Fig. S5

A



Patients at Risk							
hypertensive	556	507	417	330	267	218	146
non hypertensive	99	95	82	74	62	48	35

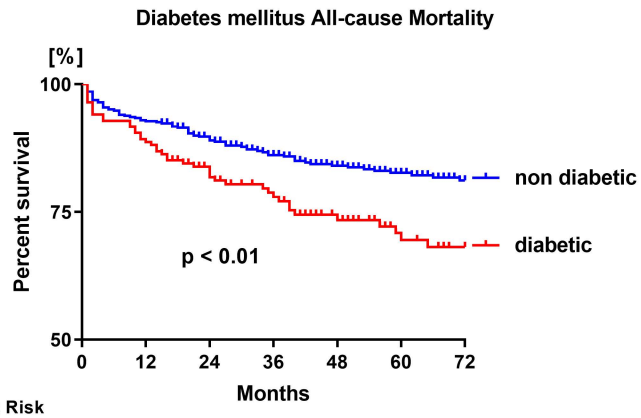
B



Patients at Risk							
hypertensive	556	507	417	330	267	218	146
non hypertensive	99	95	82	74	62	48	35

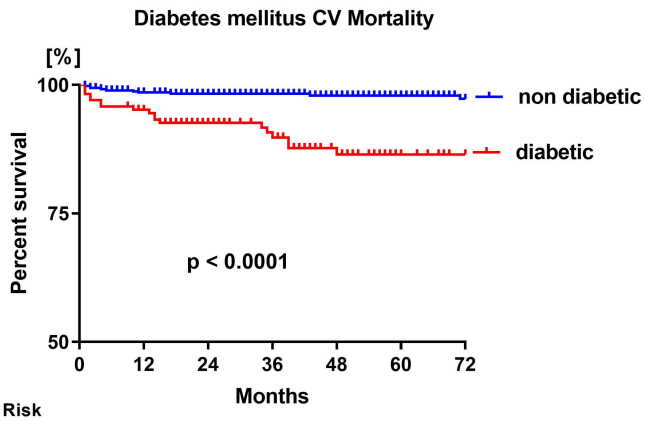
Fig. S6

A



Patients at Risk							
diabetic	168	150	125	94	69	53	41
non diabetic	485	451	374	308	260	255	139

B

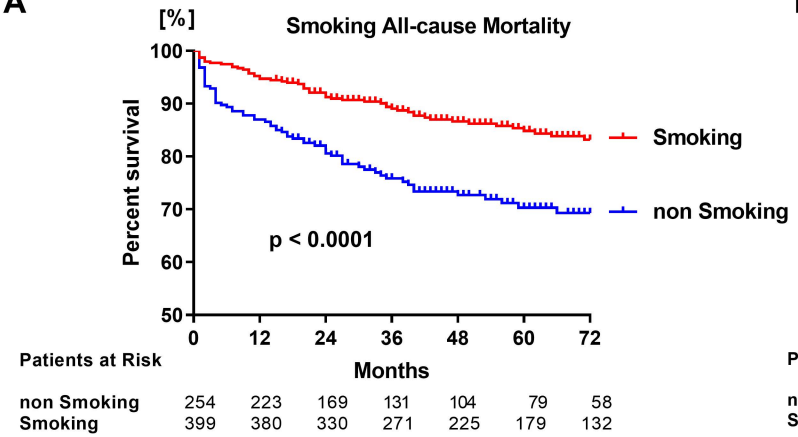


Patients at Risk							
diabetic	168	150	125	94	69	53	41
non diabetic	485	451	374	308	260	255	139

Supplement Figures

Fig. S7

A



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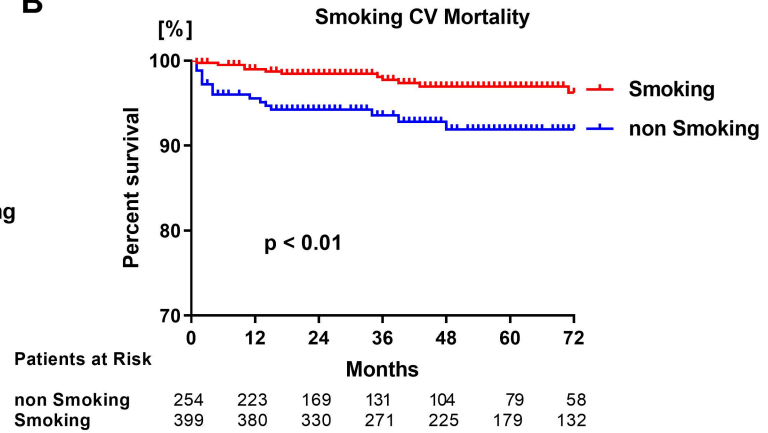
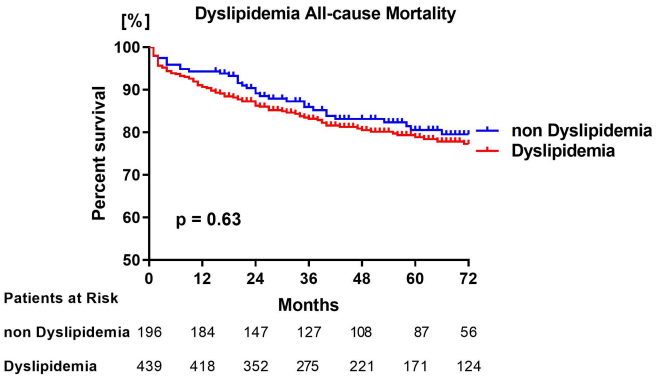


Fig. S8

A



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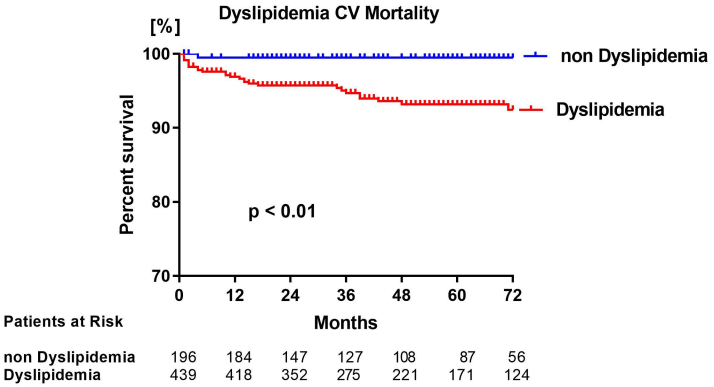
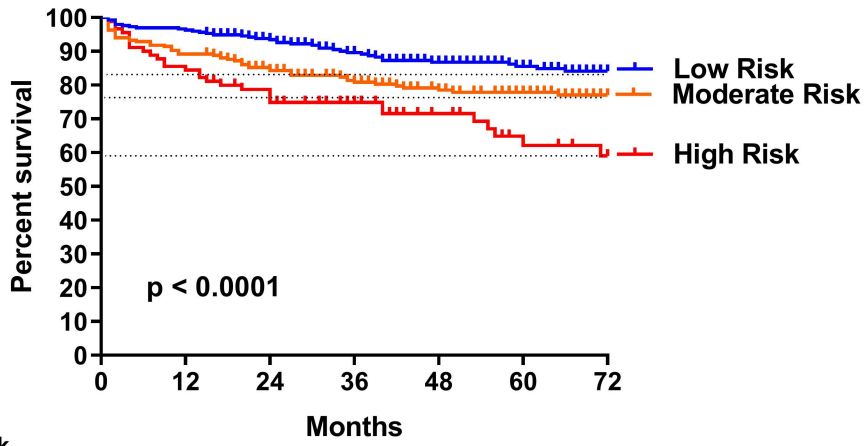


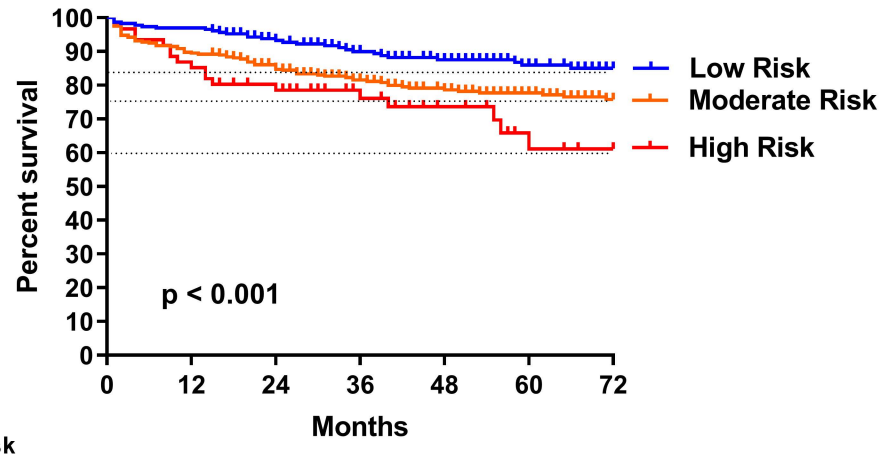
Fig. S9 Comparison of Risk Scores Test population

A



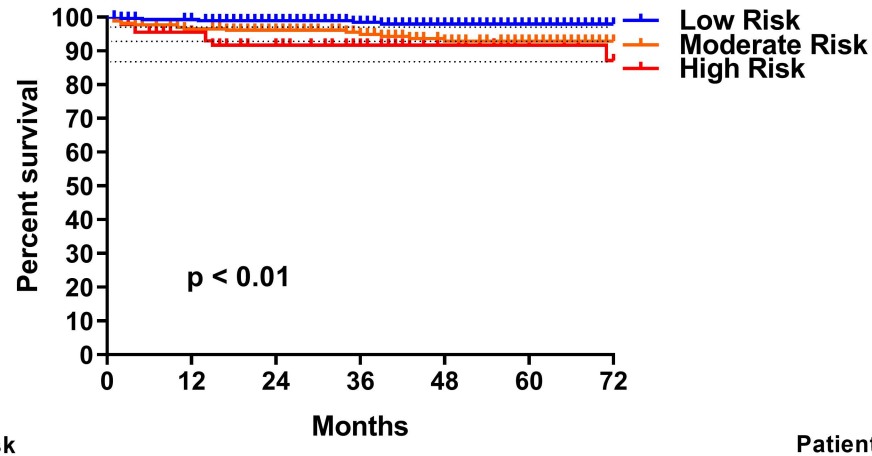
Patients at Risk							
Low Risk (1-4)	297	285	244	199	168	131	86
Mod. risk (5-8)	268	242	193	155	127	103	75
High risk (9-12)	90	79	62	48	35	24	19

C



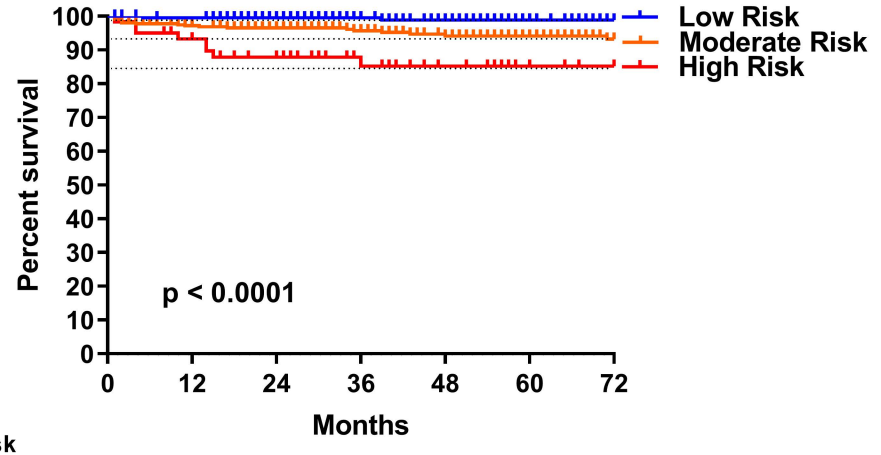
Patients at Risk							
Low Risk (1-6)	232	224	183	156	134	105	69
Mod. risk (7-12)	362	325	272	213	174	139	100
High risk (13-18)	61	53	44	33	22	14	11

B



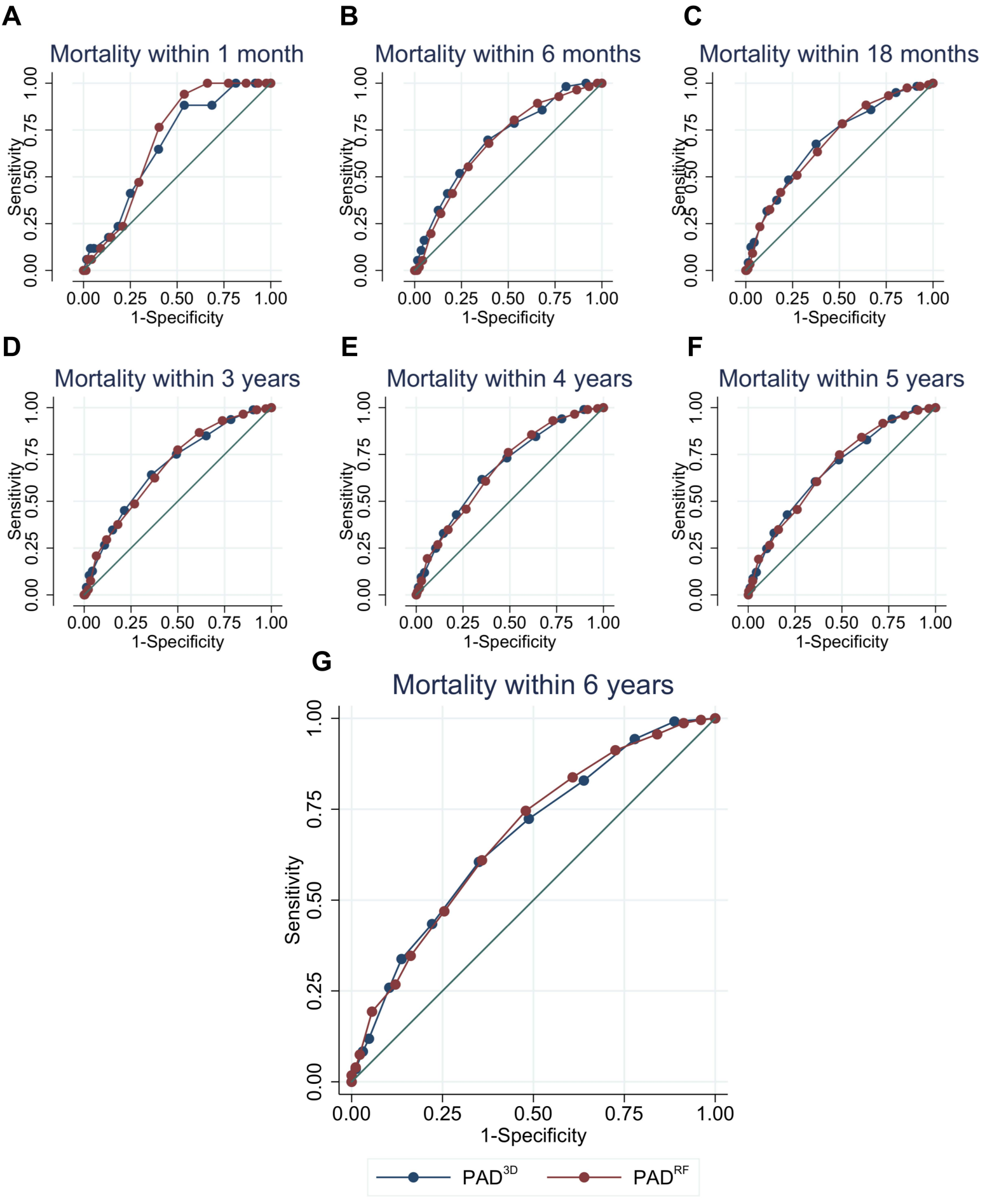
Patients at Risk							
Low Risk (1-4)	297	285	244	199	168	131	86
Mod. risk (5-8)	268	242	193	155	127	103	75
High risk (9-12)	90	79	62	48	35	24	19

D



Patients at Risk							
Low Risk (1-6)	232	224	183	156	134	105	69
Mod. risk (7-12)	362	325	272	213	174	139	100
High risk (13-18)	61	53	44	33	22	14	11

Suppl. Fig. 10


A
Mortality within 1 month
B
Mortality within 6 months
C
Mortality within 18 months
D
Mortality within 3 years
E
Mortality within 4 years
F
Mortality within 5 years
G
Mortality within 6 years
Sensitivity
1-Specificity
0.00
0.25
0.50
0.75
1.00
PAD3D
PADRF